

What Is Claimed Is:

Sub
B1
1. A digital data decompressing system that decompresses
compressed digital data to restore original data thereof,
5 comprising:

plural memory areas in which the decompressed data
is stored; and

10 flags, provided so as to correspond one for one with
the plural memory areas, which indicate whether stored data is
all predetermined logical values,

wherein, when data to be written to the memory areas
is all predetermined logical values, the corresponding flags
are set to a first state.

15 2. The digital data decompressing system according to
claim 1, wherein the predetermined logical value is a logical
"0".

20 3. The digital data decompressing system according to
claim 2, including an arithmetic circuit for performing
computations between data items stored in the memory areas,
wherein, when two data items stored in the memory areas are to
be added and the flag corresponding to one of the two data items
to be added is set to the first state, data in another memory
25 area whose flag is not set to the first state is read and stored

in a third memory area in which data after the computations is to be stored.

4. The digital data decompressing system according to claim 2, including an arithmetic circuit for performing computations between data items stored in the memory areas, wherein, when two data items stored in the memory areas are to be multiplied and the flag corresponding to one of the two data items to be multiplied is set to the first state, the flag corresponding to a memory area in which data after the computations is to be stored is set to the first state.

5. The digital data decompressing system according to claim 2, including an arithmetic circuit for performing computations between data items stored in the memory areas, and a memory management unit for managing information for identifying plural memory areas in which the data items are stored, wherein, when two data items stored in the memory areas are to be added and the flag corresponding to one of the two data items to be added is set to the first state, identification information of a memory area set to a second state and identification information of a memory area in which data after computations is to be stored are exchanged with the flag, and the flag corresponding to a memory area in which data after computations has been stored as a result of an exchange is set to the second state.

6. The digital data decompressing system according to claim 2, including a fixed data output unit that, when data is to be read from the memory area with the flag set to the first state, outputs data of logical "0" instead of the data of the memory area.

7. The digital data decompressing system according to claim 2, wherein the digital data to be decompressed is an audio data.

8. The digital data decompressing system according to claim 2, wherein the digital data to be decompressed is an image data.

9. A digital data decompressing method in a digital data decompressing system that comprises plural memory areas in which decompressed data is stored, flags, provided so as to correspond one for one with the plural memory areas, which indicate whether stored data is all logical "0"s, and an arithmetic circuit for performing computations between data items stored in the memory areas, the method comprising the steps of:

inputting digital data compressed in compliance with a predetermined method as a bit stream of a proper format and performing the restoration of original data by decompressing

the bit stream data; and

when two data items stored in the memory areas are added and the flag corresponding to one of the two data items to be added is set to a first state, reading data of another memory area whose flag is not set to the first state, storing the data of another memory area in a third memory area in which data after computations is to be stored, and setting the flag corresponding to the memory area to the second state.

10. A digital data decompressing method in a digital data decompressing system that comprises plural memory areas in which decompressed data is stored, flags, provided so as to correspond one for one with the plural memory areas, which indicate whether stored data is all logical "0"s, and an arithmetic circuit for performing computations between data items stored in the memory areas, the method comprising the steps of:

inputting digital data compressed in compliance with a predetermined method as a bit stream of a proper format and performing the restoration of original data by decompressing the bit stream data; and

when two data items stored in the memory areas are multiplied and the flag corresponding to one of the two data items to be multiplied is set to a first state, setting the flag corresponding to a third memory area in which data after multiplication is to be stored to the first state.

11. A digital data decompressing method in a digital data decompressing system that comprises plural memory areas in which decompressed data is stored, and flags, provided so as to correspond one for one with the plural memory areas, which indicate whether stored data is all logical "0"s, the method comprising the steps of:

inputting digital data compressed in compliance with a predetermined method as a bit stream of a proper format and performing the restoration of original data by decompressing the bit stream data;

whereas performing counting of the number of valid data, storing successively the valid data to be decompressed in the plural memory areas and setting the flags corresponding to the memory areas to the first state; and

when the valid data is exhausted, setting the flags corresponding to remaining memory areas in which data to be decoded is to be stored to a second state.